

(PCT Article 36 and Rule 70)

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/011019

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-3, 7-13 as originally filed/furnished
- pages* 4-6 received by this Authority on 03.07.2005 with letter of 03.07.2005
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-6 received by this Authority on 03.07.2005 with letter of 03.07.2005
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/1 as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/011019

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>1-6</u>	YES
		Claims <u></u>	NO
	Inventive step (IS)	Claims <u>1-6</u>	YES
		Claims <u></u>	NO
	Industrial applicability (IA)	Claims <u>1-6</u>	YES
		Claims <u></u>	NO
2.	Citations and explanations (Rule 70.7)		
1	Reference is made to the following document:		
	D1: US-B1-6 222 443.		
2	<p>Document D1 is considered the prior art closest to the subject matter of claim 1. It discloses a tow vehicle, a trailer and a trailer coupling, wherein the trailer has data lines for the transmission of the control data and power supply lines for a power supply to the components, and wherein the tow vehicle has a voltage generator for producing a periodically fluctuating carrier signal, a signal modulator modulates the control data onto the carrier signal and a transmitter is disposed in the tow part of the tow vehicle so as to transmit the carrier signal onto which the control data have been modulated to a transmitter near the hitch part of the trailer, wherein a demodulator in the trailer splits the total signal transmitted by inductive coupling into a carrier signal and the control data, and the control data are intended for controlling a component in the trailer.</p>		

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The subject matter of claim 1 therefore differs from the known tow vehicle in that it is an articulated vehicle and that a fifth-wheel coupling assigned to the tow vehicle and a coupling part assigned to the semi-trailer is provided for mechanically connecting the tow vehicle and the semi-trailer, wherein the coupling part assigned to the tow vehicle is a fifth-wheel pick-up plate and the coupling part assigned to the semi-trailer is in the form of a matching fifth-wheel kingpin, wherein a transmitter is disposed in the pick-up plate of the tow vehicle so as to transmit the carrier signal onto which the control data have been modulated to a transmitter near the fifth-wheel kingpin of the semi-trailer, and wherein the transmitter in the fifth-wheel pick-up plate of the tow vehicle is a toroidal coil whose straight or curved longitudinal axis is essentially parallel to the plane of the fifth-wheel pick-up plate.

Consequently, the subject matter of claim 1 is novel (PCT Article 33(2)).

- 2.1 The problem to be solved by the present invention is therefore understood to be that of creating a space-saving transmission system for an articulated vehicle, which does not require a mechanical coupling of the electrical plug-in connector of the electric lines.

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	<p>The solution to this problem, as proposed in claim 1 of the present application, does not involve an inventive step (PCT Article 33(3)), for the following reasons:</p> <p>The arrangement of the transmitter toroidal coil parallel to the plane of the pick-up plate creates a compact transmission device. The combination of features contained in claim 1 is not suggested by the present prior art.</p> <p>2.2 Claims 3 and 4 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step.</p> <p>2.3 Dependent claims 2, 5 and 6 respectively relate to an articulated vehicle, a tow vehicle and a semi-trailer. They contain the inventive features of claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step.</p>